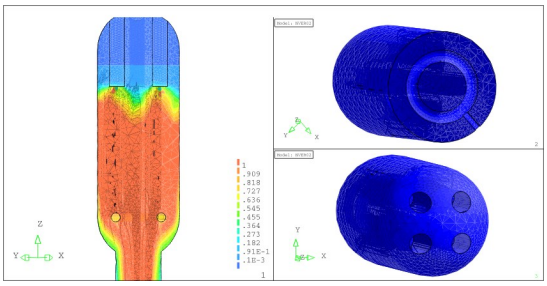
Process Intensification Laboratory

Research:

Green Engineering Theme

- Intensification of Liquid-Liquid processes
- Electrically enhanced processes
- Catalysis in the presence of electrical fields
- Fluid dynamics and finite element modeling
- Biologically enhanced ion exchange



Electrically intensified liquid-liquid reactor - showing simulations of dispersion cloud and concentration profile during reaction

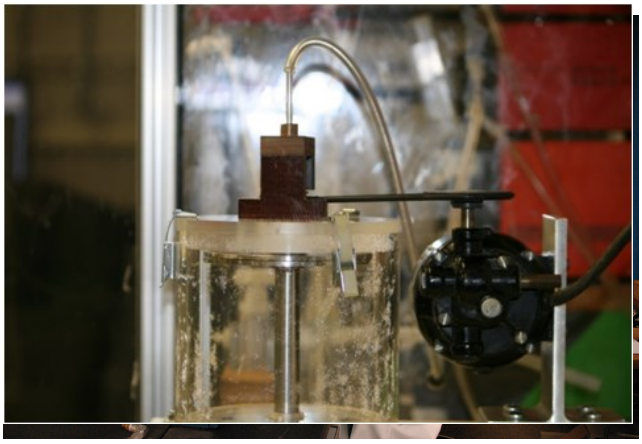
J. Petera, L.R. Weatherley, D. Rooney, K. Kaminski (2009) Computers and Chemical Engineering 33, 144–161

Collaborating Faculty:

Dr Aaron Scurto
Dr RV Chaudhari
Dr Jerzy Petera (Lodz University of Technology)

Equipment:

- ◊ L/L Contactors and test cells
- ◊ Spinning disk contactors
- ◊ Ion Exchange columns
- ◊ High voltage equipment
- ◊ Gas Chromatography



Impinging jet spinning disk L/L contactor

Director:

Laurence R Weatherley Ph.D.
University of Cambridge, 1973
Distinguished Professor,
Chemical & Petroleum Engineering
lweather@ku.edu

Courses:

- C&PE 111 Intro to Chem Eng
- C&PE 715 Green Chem and Engineering
- C&PE 523 Mass Transfer
- C&PE 613 Chemical Engineering Design
- C&PE 651 Undergraduate Research (Study Abroad)

Go to **cpe.engr.ku.edu** to learn more.